

New Inventions.

AN OXYGEN-DRIVEN CHLOROFORM INHALER.

THIS apparatus (Fig. 1), on the principle of the Junker chloroform inhaler, is designed to simplify the simultaneous administration of oxygen and chloroform. A short cannula (Fig. 2) at the extremity of the bellows system plugs into the tube leading from the oxygen cylinder. The bellows consists of two bulbs, each of the capacity of 100 c.c.; the first bulb is provided with an inlet valve. The chloroform chamber is fitted with oxygen inlet and chloroform vapour outlet tubes (Figs. 3 and 4). These tubes are connected outside the chamber by a short-circuit tube controlled by a simple tap. By closing this tap the current of oxygen no longer passes through the chloroform in the chamber, but is delivered through the short circuit directly to the face-piece free from chloroform vapour.

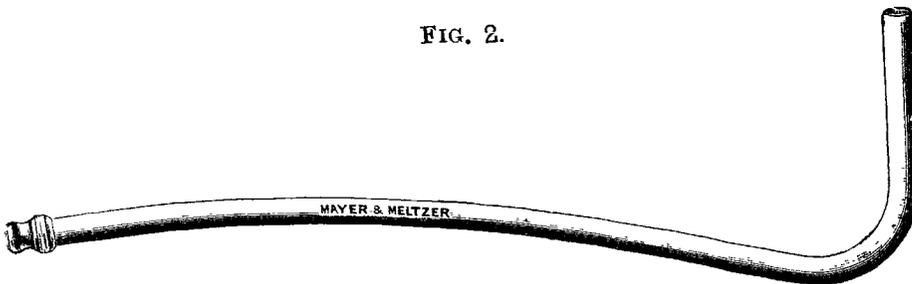
To use the inhaler the cannula is plugged into the oxygen cylinder

FIG. 1.



Oxygen-chloroform inhaler, consisting of a bellows system free at one end for attachment to the oxygen cylinder, and attached to the chloroform bottle, from which an outlet tube leads to the face mask. The inlet and outlet tubes can be short-circuited by a curved connecting tube, which is opened and closed by a stopcock.

FIG. 2.



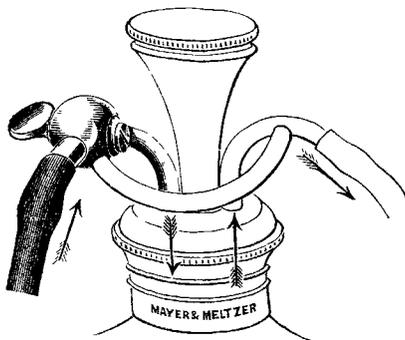
The cannula for mouth administration.

tubing and a feeble current is allowed to enter the chloroform chamber. The current required to maintain anaesthesia corresponds to between 0.5-1.0 litre per minute. The current passing is measured by compressing the bulb, allowing it to fill, compressing again, and noting how often per minute the bulb is filled. As the capacity of the bulb is 100 c.c. five fillings per minute correspond to a current of 0.5 litre, ten fillings to a current of 1.0 litre, and so on. The average patient requires a current of 0.75 litre per minute (7-8 fillings). At any moment the chloroform vapour may be instantaneously cut off and pure oxygen supplied to the patient by turning the short-circuit tap. The percentage of chloroform in the mixture delivered is very low; about 3.5 c.c. (1 drachm) of chloroform is volatilised every quarter of an hour with the average 0.75 litre oxygen current. It has not been found necessary to interpose

an oxygen reservoir bag in the system—there is already a triple expansion series—viz., two bulbs and the chloroform chamber—and no appreciable chilling of the oxygen-chloroform mixture occurs. In default of oxygen the apparatus may be used as an ordinary air-bellows inhaler by disconnecting the cannula from the oxygen cylinder tubing.

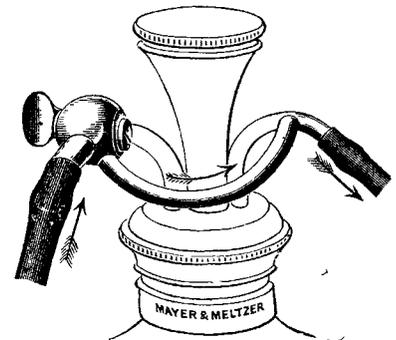
The apparatus is carefully constructed by Messrs. Mayer and Meltzer, 71, Great Portland-street, W.

FIG. 3.



The attachment to the chloroform bottle, showing the stopcock open, so that the stream of oxygen passes down the tube into the chloroform bottle, whence the emerging stream to the face-mask consists of oxygen plus chloroform.

FIG. 4.



The same as Fig. 3, but with the stopcock closed, showing how the oxygen stream, instead of passing through the chloroform bottle, goes directly through the short-circuit tube to the face-mask, thus delivering pure oxygen without the admixture of chloroform.

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UNIVERSITY OF ST. ANDREWS.—We learn that the Senatus Academicus of the University of St. Andrews has resolved to confer the honorary degree of LL.D. upon the following members of the medical profession, in this country and abroad, at the celebration in September of the 500th anniversary of the foundation of the University:—Professor Sir T. Clifford Allbutt, Cambridge University; Sir Thomas Barlow, President of the Royal College of Physicians of London; Mr. G. A. Berry, honorary surgeon oculist to the King in Scotland; Dr. Byrom Bramwell, President of the Royal College of Physicians of Edinburgh; Dr. Robert Bridges; Dr. Alexander Crum Brown; Professor Sir Hector Cameron,

University of Glasgow; Professor Francis Gotch, University of Oxford; Professor Peter Fredrik Holst, Royal Frederick University of Christiania; Professor Hector Lehoucq, University of Ghent; Professor C. S. Minot, of Harvard; Professor R. A. Reddingius, University of Groningen; Professor Robert Saundby, President of the British Medical Association; Professor E. A. Schäfer, University of Edinburgh; Professor W. W. Keen of Philadelphia; Lieutenant-Colonel David Prain, Director of the Royal Botanic Gardens, Kew; Dr. Anthony Traill, Provost of Trinity College, Dublin; and Professor Johann Veit, University of Halle.